MC 87-I-20F(P)

PRELIMINARY REPORT
INDUSTRY SERIES

1987
Census of Manufactures

MC87-I-20F(P)
Issued July 1989

SUGAR AND CONFECTIONERY PRODUCTS

Industries 2061, 2062, 2063, 2064, 2066, 2067, and 2068

INTRODUCTION

This report presents preliminary statistics from the 1987 Census of Manufactures for those establishments classified in the industries listed above. These data will be superseded by a more comprehensive final paperbound report. The method of data collection and use of administrative data are discussed in detail in the appendix.

All dollar figures included in this report are at prices current for the year specified and, therefore, unadjusted for changes in price levels. Consequently, when making comparisons to prior years, users should take into consideration the inflation that has occurred.

The definitions of these industries are the same as those used in the 1987 Standard Industrial Classification (SIC) Manual.[1]

INDUSTRY 2061, RAW CANE SUGAR

In the 1987 Census of Manufactures, Industry 2061, Raw Cane Sugar, had employment of 6.3 thousand. The employment figure was 16 percent below the 7.5 thousand reported in 1982. Compared with 1986, employment in 1987 decreased 2 percent. The 1986 data are based on the Bureau's annual survey of manufactures (ASM), which is a sample survey conducted each year between censuses.

The total value of shipments for establishments classified in this industry was $1.2 billion.

In 1987, establishments in this industry accounted for 100 percent of products considered primary to the industry regardless of the industry in which they were produced (coverage ratio). In 1982, the coverage ratio was 100 percent. The products primary to this industry appear in table 2 and aggregated to $1.2 billion in 1987.

The cost of materials and services used by establishments in this industry amounted to $796.0 million in 1987. Data on specific materials consumed appear in table 3.

INDUSTRY 2062, CANE SUGAR REFINING

In the 1987 Census of Manufactures, Industry 2062, Cane Sugar Refining, had employment of 5.5 thousand. The employment figure was 34 percent below the 8.3 thousand reported in 1982. Compared with 1986, employment in 1987 was unchanged. The 1986 data are based on the Bureau's annual survey of manufactures (ASM), which is a sample survey conducted each year between censuses.

The total value of shipments for establishments classified in this industry was $2.5 billion.

In 1987, establishments in this industry accounted for 99 percent of products considered primary to the industry regardless of the industry in which they were produced (coverage ratio). In 1982, the coverage ratio was 100 percent. The products primary to this industry appear in table 2 and aggregated to $2.4 billion in 1987.

The cost of materials and services used by establishments in this industry amounted to $2.0 billion in 1987. Data on specific materials consumed appear in table 3.

INDUSTRY 2063, BEET SUGAR

In the 1987 Census of Manufactures, Industry 2063, Beet Sugar, had employment of 7.9 thousand. The employment figure was 23 percent below the 10.3 thousand

[1]**Standard Industrial Classification Manual: 1987.** For sale by Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402. Stock No. 041-001-00314-2.

Address inquiries to Bureau of the Census, Industry Division, Washington, DC 20233, or call **Robert F. Miller** (301) 763-2510.

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reported in 1982. Compared with 1986, employment in 1987 was unchanged. The 1986 data are based on the Bureau's annual survey of manufactures (ASM), which is a sample survey conducted each year between censuses.

The total value of shipments for establishments classified in this industry was $1.8 billion.

In 1987, establishments in this industry accounted for 99 percent of products considered primary to the industry regardless of the industry in which they were produced (coverage ratio). In 1982, the coverage ratio was 100 percent. The products primary to this industry appear in table 2 and aggregated to $1.8 billion in 1987.

The cost of materials and services used by establishments in this industry amounted to $1.3 billion in 1987. Data on specific materials consumed appear in table 3.

INDUSTRY 2064, CANDY AND OTHER CONFECTIONERY PRODUCTS

In the 1987 Census of Manufactures, Industry 2064, Candy and Other Confectionery Products, had employment of 44.6 thousand.

The total value of shipments for establishments classified in this industry was $7.3 billion.

In 1987, establishments in this industry accounted for 80 percent of products considered primary to the industry regardless of the industry in which they were produced (coverage ratio). The products primary to this industry appear in table 2 and aggregated to $7.3 billion in 1987.

The cost of materials and services used by establishments in this industry amounted to $3.1 billion in 1987. Data on specific materials consumed appear in table 3.

INDUSTRY 2066, CHOCOLATE AND COCOA PRODUCTS

In the 1987 Census of Manufactures, Industry 2066, Chocolate and Cocoa Products, had employment of 12.3 thousand.

The total value of shipments for establishments classified in this industry was $3.3 billion.

In 1987, establishments in this industry accounted for 39 percent of products considered primary to the industry regardless of the industry in which they were produced (coverage ratio). The products primary to this industry appear in table 2 and aggregated to $3.3 billion in 1987.

The cost of materials and services used by establishments in this industry amounted to $1.7 billion in 1987. Data on specific materials consumed appear in table 3.

INDUSTRY 2067, CHEWING GUM

In the 1987 Census of Manufactures, Industry 2067, Chewing Gum, had employment of 5.2 thousand. The employment figure was 4 percent below the 5.4 thousand reported in 1982. Compared with 1986, employment in 1987 decreased 4 percent. The 1986 data are based on the Bureau's annual survey of manufactures (ASM), which is a sample survey conducted each year between censuses.

The total value of shipments for establishments classified in this industry was $1.1 billion.

In 1987, establishments in this industry accounted for 97 percent of products considered primary to the industry regardless of the industry in which they were produced (coverage ratio). The products primary to this industry appear in table 2 and aggregated to $869.2 million in 1987.

The cost of materials and services used by establishments in this industry amounted to $347.4 million in 1987. Data on specific materials consumed appear in table 3.

INDUSTRY 2068, SALTED AND ROASTED NUTS AND SEEDS

In the 1987 Census of Manufactures, Industry 2068, Salted and Roasted Nuts and Seeds, had employment of 8.7 thousand.

The total value of shipments for establishments classified in this industry was $2.2 billion.

In 1987, establishments in this industry accounted for 94 percent of products considered primary to the industry regardless of the industry in which they were produced (coverage ratio). The products primary to this industry appear in table 2 and aggregated to $2.1 billion in 1987.

The cost of materials and services used by establishments in this industry amounted to $1.3 billion in 1987. Data on specific materials consumed appear in table 3.

ABBREVIATIONS AND SYMBOLS

The following abbreviations and symbols are used in the tables in this publication:

-	Represents zero.
(D)	Withheld to avoid disclosing data for individual companies; data are included in higher level totals.
(NA)	Not available.
(NC)	Not comparable.
(S)	Withheld because estimate did not meet publication standards on the basis of either the response rate or a consistency review.
(X)	Not applicable.
(Z)	Less than half the unit shown.
do	Ditto.
n.e.c.	Not elsewhere classified.
n.s.k.	Not specified by kind.
pt.	Part.
r	Revised.
SIC	Standard Industrial Classification.

Other abbreviations, such as lb, gal, yd, doz, bbl, and s tons, are used in the customary sense.

CONTACTS FOR DATA USERS

Subject Area	Contact	Phone
Census/ASM		
Durables	Kenneth Hansen	(301) 763-7304
Nondurables	Michael Zampogna	(301) 763-2510
Current Industrial Reports		
Durables	Malcolm Bernhardt	(301) 763-2518
Nondurables	Thomas Flood	(301) 763-5911
Import/Export Publications	Foreign Trade Division	(301) 763-5140
Industry Analysis and Forecasts	International Trade Administration	(202) 377-4356

Table 1. Historical Statistics for the Industry: 1987 and Earlier Years

[Excludes data for auxiliaries. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix.]

Year[1]	Companies[2] (no.)	All establishments[3] Total (no.)	All establishments[3] With 20 employees or more (no.)	All employees Number (1,000)	All employees Payroll (million dollars)	Production workers Number (1,000)	Production workers Hours (millions)	Production workers Wages (million dollars)	Value added by manufacture[4] (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	New capital expenditures (million dollars)	End-of-year inventories[4] (million dollars)	Ratios Specialization (percent)	Ratios Coverage (percent)
INDUSTRY 2061, RAW CANE SUGAR															
1987 Census	40	50	42	6.3	144.3	4.9	11.1	109.1	509.6	796.0	1 248.6	43.3	325.4	100	100
1986 ASM	(NA)	(NA)	(NA)	6.4	141.3	5.0	11.3	105.6	429.6	789.6	1 244.0	34.0	281.3	(NA)	(NA)
1985 ASM	(NA)	(NA)	(NA)	6.6	141.4	5.4	11.6	106.8	451.7	772.3	1 168.6	49.3	310.2	(NA)	(NA)
1984 ASM	(NA)	(NA)	(NA)	7.4	143.2	5.8	12.8	106.4	449.8	791.2	1 232.5	48.7	236.3	(NA)	(NA)
1983 ASM	(NA)	(NA)	(NA)	7.6	141.1	6.1	13.0	106.2	478.4	837.8	1 311.6	41.9	229.7	(NA)	(NA)
1982 Census	43	51	44	7.5	133.8	5.8	13.1	100.5	297.7	755.8	1 113.9	89.6	237.9	100	100
1981 ASM	(NA)	(NA)	(NA)	7.8	137.6	6.4	14.5	108.0	515.0	873.9	1 344.5	95.5	313.3	(NA)	(NA)
1980 ASM	(NA)	(NA)	(NA)	6.9	111.6	5.6	12.9	88.9	771.9	789.7	1 486.3	[6]83.3	233.9	(NA)	(NA)
1979 ASM	(NA)	(NA)	(NA)	7.0	102.1	5.7	12.9	83.0	274.0	491.3	842.8	39.4	95.8	(NA)	(NA)
1978 ASM	(NA)	(NA)	(NA)	7.2	95.1	5.6	12.3	69.4	297.9	430.2	698.9	42.6	134.8	(NA)	(NA)
1977 Census	49	65	55	8.0	95.8	6.3	13.6	70.8	275.7	440.1	704.0	43.4	107.9	100	99
1976 ASM	(NA)	(NA)	(NA)	8.1	99.6	6.3	14.7	75.8	246.2	429.1	713.5	72.7	78.7	(NA)	(NA)
1975 ASM	(NA)	(NA)	(NA)	7.8	88.4	6.2	13.9	66.4	454.4	535.1	1 015.9	74.4	117.4	(NA)	(NA)
1974 ASM[5]	(NA)	(NA)	(NA)	7.0	70.1	5.4	12.7	52.1	737.1	599.3	1 262.1	38.5	140.8	(NA)	(NA)
1973 ASM	(NA)	(NA)	(NA)	7.1	66.5	5.6	13.3	50.0	219.5	335.4	542.0	34.3	56.5	(NA)	(NA)
1972 Census	61	77	62	7.1	60.7	5.2	12.3	44.0	151.7	260.9	406.5	28.8	43.2	99	96
INDUSTRY 2062, CANE SUGAR REFINING															
1987 Census	16	23	16	5.5	177.2	4.2	9.0	130.2	444.2	2 001.3	2 457.6	32.6	309.6	100	99
1986 ASM	(NA)	(NA)	(NA)	5.5	179.3	4.1	9.2	132.9	551.2	2 063.8	2 604.9	34.9	307.9	(NA)	(NA)
1985 ASM	(NA)	(NA)	(NA)	5.8	175.8	4.3	9.4	132.8	583.5	2 029.4	2 616.4	41.0	273.6	(NA)	(NA)
1984 ASM	(NA)	(NA)	(NA)	7.4	198.1	5.6	11.6	146.0	536.4	2 538.3	3 081.0	69.5	319.8	(NA)	(NA)
1983 ASM	(NA)	(NA)	(NA)	7.6	195.1	5.8	11.8	141.4	631.3	2 512.6	3 145.1	51.9	359.1	(NA)	(NA)
1982 Census	19	30	25	8.3	197.2	6.2	12.8	139.5	622.4	2 424.9	3 040.3	69.2	363.0	100	100
1981 ASM	(NA)	(NA)	(NA)	9.4	223.0	6.9	14.6	156.6	567.6	3 170.6	3 773.0	40.1	350.4	(NA)	(NA)
1980 ASM	(NA)	(NA)	(NA)	9.8	210.0	7.2	15.1	149.0	802.6	3 355.8	4 110.5	40.5	469.2	(NA)	(NA)
1979 ASM	(NA)	(NA)	(NA)	9.8	189.7	7.1	14.8	132.9	601.0	2 102.0	2 715.0	36.4	242.8	(NA)	(NA)
1978 ASM	(NA)	(NA)	(NA)	10.3	183.9	7.4	15.7	127.2	520.7	1 745.3	2 291.5	31.5	250.8	(NA)	(NA)
1977 Census	27	40	27	10.2	168.9	7.2	15.4	116.4	526.2	1 755.1	2 260.0	53.4	345.1	99	100
1976 ASM	(NA)	(NA)	(NA)	10.3	158.2	7.3	15.3	107.5	550.7	2 057.6	2 596.0	37.9	292.5	(NA)	(NA)
1975 ASM	(NA)	(NA)	(NA)	10.5	144.4	7.3	15.1	96.0	479.5	2 878.0	3 474.9	40.1	238.6	(NA)	(NA)
1974 ASM	(NA)	(NA)	(NA)	10.9	143.1	7.8	17.5	98.6	878.7	3 775.2	4 477.9	22.2	533.8	(NA)	(NA)
1973 ASM	(NA)	(NA)	(NA)	10.6	121.8	7.8	16.9	83.8	415.9	1 515.3	1 913.3	19.5	240.5	(NA)	(NA)
1972 Census	22	33	28	10.9	119.5	8.2	18.1	83.8	383.9	1 [illegible]9.9	1 742.7	23.6	203.2	99	98
INDUSTRY 2063, BEET SUGAR															
1987 Census	15	43	38	7.9	190.1	6.6	14.4	151.0	613.2	1 277.1	1 831.6	42.5	630.7	100	99
1986 ASM	(NA)	(NA)	(NA)	7.9	186.2	6.5	14.6	145.4	665.3	1 145.6	1 757.7	88.3	608.8	(NA)	(NA)
1985 ASM	(NA)	(NA)	(NA)	7.9	180.6	6.6	14.7	142.8	524.3	1 203.3	1 788.8	85.3	458.5	(NA)	(NA)
1984 ASM	(NA)	(NA)	(NA)	8.2	168.4	7.0	14.7	134.7	659.6	1 232.1	1 835.1	62.5	504.5	(NA)	(NA)
1983 ASM	(NA)	(NA)	(NA)	7.8	155.1	6.6	14.3	124.6	530.9	1 087.1	1 584.7	27.9	448.2	(NA)	(NA)
1982 Census	14	48	44	10.3	169.4	8.8	17.3	136.4	432.2	1 102.5	1 515.8	32.8	480.5	100	100
1981 ASM	(NA)	(NA)	(NA)	10.3	163.5	8.8	17.3	130.8	541.3	1 336.4	1 872.7	39.8	399.5	(NA)	(NA)
1980 ASM	(NA)	(NA)	(NA)	9.9	142.2	8.5	16.6	113.1	527.3	1 225.8	1 802.3	61.2	418.2	(NA)	(NA)
1979 ASM	(NA)	(NA)	(NA)	9.7	141.0	8.1	16.5	112.5	375.3	967.5	1 347.8	56.9	426.1	(NA)	(NA)
1978 ASM	(NA)	(NA)	(NA)	10.8	150.0	9.4	18.7	123.1	351.3	899.3	1 265.3	53.6	470.8	(NA)	(NA)
1977 Census	14	57	52	11.4	143.3	9.9	21.3	119.0	345.6	836.9	1 181.7	43.5	467.1	99	99
1976 ASM	(NA)	(NA)	(NA)	13.0	153.6	11.4	24.5	130.5	475.5	1 030.9	1 483.2	109.7	510.6	(NA)	(NA)
1975 ASM	(NA)	(NA)	(NA)	12.4	130.5	11.0	22.1	110.4	689.7	1 149.6	1 741.1	72.7	469.0	(NA)	(NA)
1974 ASM	(NA)	(NA)	(NA)	11.7	110.4	10.5	21.6	94.2	769.8	1 024.7	1 687.8	25.5	357.0	(NA)	(NA)
1973 ASM	(NA)	(NA)	(NA)	11.1	102.3	10.0	21.3	88.5	257.4	651.3	936.7	26.4	231.8	(NA)	(NA)
1972 Census	16	61	54	11.5	92.3	10.4	21.2	78.4	310.5	566.5	880.2	34.9	254.4	99	100
INDUSTRY 2064, CANDY AND OTHER CONFECTIONERY PRODUCTS[7]															
1987 Census	601	653	288	44.6	883.7	36.1	67.2	623.9	4 208.6	3 139.6	7 326.8	231.0	725.0	96	[8]80
INDUSTRY 2066, CHOCOLATE AND COCOA PRODUCTS[7]															
1987 Census	171	185	54	12.3	304.3	9.5	17.7	205.1	1 576.0	1 724.2	3 279.4	90.3	450.2	93	[8]39
INDUSTRY 2067, CHEWING GUM															
1987 Census	13	18	12	5.2	125.5	4.3	8.0	93.1	749.9	347.4	1 090.9	23.1	126.4	91	97
1986 ASM	(NA)	(NA)	(NA)	5.4	125.5	4.3	8.2	91.2	732.3	354.3	1 082.3	25.1	123.2	(NA)	(NA)
1985 ASM	(NA)	(NA)	(NA)	5.3	118.9	4.2	7.9	85.0	654.6	349.9	1 004.1	(D)	132.2	(NA)	(NA)
1984 ASM	(NA)	(NA)	(NA)	5.7	115.2	4.6	8.4	82.4	672.8	342.3	1 014.8	24.4	121.7	(NA)	(NA)
1983 ASM	(NA)	(NA)	(NA)	5.4	101.0	4.3	7.9	75.0	592.2	375.3	967.1	20.0	132.9	(NA)	(NA)
1982 Census	9	14	14	5.4	96.9	4.3	7.9	70.4	598.9	312.3	915.3	16.6	123.2	79	(D)
1981 ASM	(NA)	(NA)	(NA)	5.8	96.8	4.5	8.2	67.7	487.2	323.0	806.7	15.2	120.8	(NA)	(NA)
1980 ASM	(NA)	(NA)	(NA)	6.3	95.7	4.9	9.0	66.3	444.9	295.2	744.4	19.1	128.3	(NA)	(NA)
1979 ASM	(NA)	(NA)	(NA)	7.0	94.4	5.6	10.5	69.0	468.3	296.9	762.7	27.6	138.9	(NA)	(NA)
1978 ASM	(NA)	(NA)	(NA)	6.6	83.0	5.3	10.3	61.8	401.1	236.8	641.3	20.4	125.8	(NA)	(NA)
1977 Census	14	18	14	7.7	83.9	6.0	11.6	62.7	335.5	233.0	566.5	22.1	116.4	92	77
1976 ASM	(NA)	(NA)	(NA)	6.5	73.3	5.3	10.8	56.3	317.7	223.3	538.4	19.7	125.1	(NA)	(NA)
1975 ASM	(NA)	(NA)	(NA)	5.7	57.6	4.6	8.9	44.2	276.4	207.0	480.8	14.5	109.3	(NA)	(NA)
1974 ASM	(NA)	(NA)	(NA)	6.4	57.2	5.2	10.1	43.9	239.2	196.7	431.5	11.4	95.1	(NA)	(NA)
1973 ASM	(NA)	(NA)	(NA)	7.0	57.1	5.6	10.7	41.0	253.2	150.7	404.2	10.6	76.7	(NA)	(NA)
1972 Census	15	19	16	6.9	53.6	5.8	11.5	41.3	228.4	150.5	382.6	19.0	72.2	90	86
INDUSTRY 2068, SALTED AND ROASTED NUTS AND SEEDS[7]															
1987 Census	79	87	65	8.7	171.9	6.9	13.4	115.2	864.9	1 286.1	2 171.0	27.9	249.1	91	94

See footnotes at end of table.

Table 1. **Historical Statistics for the Industry: 1987 and Earlier Years**—Con.

Note: Establishments of single unit companies with up to 20 employees (cutoff varied by industry) were excluded from the mail portion of the census. Data for these establishments (and a small number of larger establishments whose reports were not received at the time the data were tabulated) were estimated based on administrative-record information from other agencies in conjunction with industry averages. These establishments accounted for the following percent of total value of shipments: SIC 2061, 0%; SIC 2062, 0%; SIC 2063, 0%; SIC 2064, 7%; SIC 2066, 3%; SIC 2067, 0%; SIC 2068, 1%.

[1]In annual survey of manufactures (ASM) years, data are estimates based on a representative sample of establishments canvassed annually and may differ from results of a complete canvass of all establishments. ASM publication shows percentage standard errors. Unless otherwise noted, for data prior to 1972, see 1972 Census of Manufactures, vol. II, table 1a of the industry chapter.

[2]For the census, a company is defined as a business organization consisting of one establishment or more under common ownership or control.

[3]Includes establishments with payroll at any time during year.

[4]Beginning with the 1982 Census of Manufactures, all respondents were requested to report their inventories at (the lower of) cost or market prior to adjustment to LIFO cost. This is a change from prior Censuses and annual surveys of manufactures in which respondents were permitted to value their inventories using any generally accepted accounting method. Consequently, inventories and value added by manufacture are not comparable to prior-year data.

[5]Data either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data; thus, these estimates may be of limited reliability.

[6]Estimates for new capital expenditures have associated standard error of 15 percent or more and may be of limited reliability. Estimates for other data items are of acceptable reliability.

[7]Industry definition is new for 1987 Census of Manufactures. An explanation of the Standard Industrial Classification revision will appear in the final industry series text that supercedes this report.

[8]Chocolate confectionery from industry 2066 is included in determining coverage ratio.

[9]Chocolate confectionery from industry 2064 is included in determining coverage ratio.

Table 2. **Product and Product Classes—Quantity and Value of Shipments by All Producers: 1987 and 1982**

[Includes quantity and value of products of this industry produced by (1) establishments classified in this industry (primary) and (2) establishments classified in other industries (secondary). Transfers of products of this industry from one establishment of a company to another establishment of the same company (interplant transfers) are also included. For further explanation, see Value of Shipments in appendix. For meaning of abbreviations and symbols, see introductory text]

1987 product code	Product	1987			1982		
		Number of companies with shipments of $100,000 or more	Product shipments[1]		Number of companies with shipments of $100,000 or more	Product shipments[1]	
			Quantity[2]	Value (million dollars)		Quantity[2]	Value (million dollars)
2061- —	**RAW CANE SUGAR**						
	Total	**(NA)**	**(X)**	**1 232.2**	**(NA)**	**(X)**	**1 091.2**
20610 —	Sugar cane mill products and byproducts:						
20610 11	Raw cane sugar, 1,000 s tons	29	3 051.5	1 147.7	34	2 551.0	1 005.9
	Other sugar cane mill products and byproducts:						
20610 65	Molasses and syrup, including cane blackstrap (except refiners' blackstrap), 1,000 s tons	32	1 173.4	57.5	36	*1 223.9	47.0
20610 85	All other sugar cane mill products and byproducts, including sugar for consumer use without further processing; bagasse; etc., do.	4	(S)	4.6	3	(S)	10.9
20610 00	Raw cane sugar and byproducts, n.s.k., typically for establishments with 10 employees or more (see note)	(NA)	(X)	16.5	(NA)	(X)	21.4
20610 02	Raw cane sugar and byproducts, n.s.k., typically for establishments with less than 10 employees (see note)	(NA)	(X)	5.8	(NA)	(X)	5.9
2062- —	**CANE SUGAR REFINING**						
	Total	**(NA)**	**(X)**	**2 437.7**	**(NA)**	**(X)**	**2 992.3**
20620 —	Refined cane sugar and byproducts:						
	Refined cane sugar:						
	Granulated cane sugar, including cube and tablet sugar:						
20620 09	Shipped in individual services (small paper packets), 1,000 s tons	6	55.7	46.1	5	43.2	32.9
20620 12	Shipped in consumer units (containers of 25 lb or less), do.	10	1 480.3	808.2	10	1 343.6	670.5
20620 14	Shipped in commercial units (bags and other containers more than 25 lb), do.	6	1 287.2	479.1	9	2 389.2	958.4
20620 15	Shipped in bulk (rail cars, trucks, or bins), do.	6	1 238.1	580.2	10	1 175.2	506.2
	Confectioners' powdered suger:						
20620 31	Shipped in consumer units (containers of 10 lb or less), 1,000 s tons	5	67.4	49.8	6	59.4	50.0
20620 35	Shipped in commercial units (containers of more than 10 lb), do.	6	176.4	97.9	9	288.7	155.9
	Soft or brown sugar:						
20620 41	Shipped in consumer units (containers of 10 lb or less), 1,000 s tons	8	101.3	72.3	5	48.0	41.3
20620 45	Shipped in commercial units (containers of more than 10 lb), do.	4	121.6	65.3	7	221.5	122.4
	Liquid sugar or sugar syrup:						
20620 53	Sucrose type, 1,000 s tons sugar solids	6	353.4	168.2	10	569.3	249.0
20620 56	Invert and/or partially invert type, do.	4	63.9	33.7	8	342.6	185.9
20620 75	Other cane sugar refining products and byproducts, including refiners' blackstrap and syrup, 1,000 s tons	5	**76.9	26.9	8	148.6	11.7
20620 00	Refined cane sugar and byproducts, n.s.k., typically for establishments with 5 employees or more (see note)	(NA)	(X)	9.0	(NA)	(X)	7.3
20620 02	Refined cane sugar and byproducts, n.s.k., typically for establishments with less than 5 employees (see note)	(NA)	(X)	.9	(NA)	(X)	.9

See footnotes at end of table.

Table 2. Product and Product Classes—Quantity and Value of Shipments by All Producers: 1987 and 1982—Con.

[Includes quantity and value of products of this industry produced by (1) establishments classified in this industry (primary) and (2) establishments classified in other industries (secondary). Transfers of products of this industry from one establishment of a company to another establishment of the same company (interplant transfers) are also included. For further explanation, see Value of Shipments in appendix. For meaning of abbreviations and symbols, see introductory text]

1987 product code	Product	1987			1982		
		Number of companies with shipments of $100,000 or more	Product shipments[1]		Number of companies with shipments of $100,000 or more	Product shipments[1]	
			Quantity[2]	Value (million dollars)		Quantity[2]	Value (million dollars)
2063- —	**BEET SUGAR**						
	Total	**(NA)**	**(X)**	**1 831.8**	**(NA)**	**(X)**	**1 506.3**
20630 —	Refined beet sugar and byproducts:						
	Refined beet sugar:						
20630 07	Granulated beet sugar, including cube and tablet sugar: Shipped in individual services (small paper packets) and in consumer units (cartons and sacks of 25 lb or less) — 1,000 s tons	7	309.7	159.8	8	442.5	213.3
20630 13	Shipped in commercial units (bags and other containers of more than 25 lb) — do	10	861.5	537.2	10	617.3	282.1
20630 15	Shipped in bulk (rail cars, trucks, or bins) — do	11	1 834.7	810.6	10	1 427.2	683.3
20630 33	Confectioners' powdered sugar — do	7	110.6	60.8	7	72.5	36.0
	Liquor sugar or sugar syrup:						
20630 51	Sucrose type — 1,000 s tons sugar solids	5	124.2	75.1	6	116.2	57.0
20630 55	Invert and/or partially invert type — do	5	28.3	13.4	6	93.0	48.6
	Other beet sugar factory products and byproducts:						
20630 75	Whole or straighthouse molasses — 1,000 s tons	11	808.4	49.6	9	816.0	45.4
20630 81	Discard molasses — do	2	(D)	(D)	2	(D)	(D)
20630 82	Molasses beet pulp, bulk — do	5	457.8	37.7	5	362.2	37.5
20630 84	Molasses beet pulp, pelletized — do	8	545.8	40.9	10	851.1	75.1
20630 89	All other beet pulp, including dried beet pulp — do	5	(D)	(D)	6	(D)	(D)
20630 00	Beet sugar products, n.s.k., typically for establishments with 5 employees or more (see note)	(NA)	(X)	2.9	(NA)	(X)	.2
20630 02	Beet sugar products, n.s.k., typically for establishments with less than 5 employees (see note)	(NA)	(X)	.1	(NA)	(X)	–
2064- —	**CANDY AND OTHER CONFECTIONERY PRODUCTS**						
	Total	**(NA)**	**(X)**	**7 311.6**	**(NA)**	**(X)**	**4 730.8**
20642 —	Chocolate and chocolate-type confectionery products made from purchased chocolate:						
20642 00	Chocolate and chocolate-type confectionery products made from purchased chocolate, including bar goods, granola bars, package goods, specialties, bulk goods, count goods, molded confections, etc. (see also code 20662) (for additional detail, see Current Industrial Report MA-20D, Confectionery) — mil lb	145	2 092.4	4 419.2	155	1 444.5	2 719.6
20643 —	Nonchocolate-type products:						
20643 00	Nonchocolate-type confectionery products, including bar goods, granola bars, package goods, specialties, bulk goods, count goods, etc. (for additional detail, see Current Industrial Report MA-20D, Confectionery) — mil lb	163	1 932.2	2 357.7	171	*1 575.8	1 593.7
20649 —	Other confectionery-type products	(NA)	(X)	110.4	(NA)	(X)	76.6
20649 21	Cough drops, except pharmaceutical type — mil lb	5	13.7	52.1	12	65.8	76.6
20649 76	Glace, candied and crystallized fruits, fruit peels, nuts, and other vegetable substances — do	11	63.5	52.5			
20649 00	Other confectionery-type products, n.s.k.	(NA)	(X)	5.8	(NA)	(X)	–
20640 —	Candy and other confectionery products, n.s.k.	(NA)	(X)	424.4	(NA)	(X)	340.9
20640 00	Candy and other confectionery products, n.s.k., typically for establishments with 5 employees or more (see note)	(NA)	(X)	209.0	(NA)	(X)	175.4
20640 02	Candy and other confectionery products, n.s.k., typically for establishments with less than 5 employees (see note)	(NA)	(X)	215.3	(NA)	(X)	165.5
2066- —	**CHOCOLATE AND COCOA PRODUCTS**						
	Total	**(NA)**	**(X)**	**3 273.9**	**(NA)**	**(X)**	**2 419.6**
20661 —	Chocolate coatings	(NA)	(X)	690.3	(NA)	(X)	352.7
20661 12	Sweet — mil lb	7	92.3	108.3	7	69.0	60.9
20661 22	Milk — do	14	290.7	304.1	9	114.0	146.6
20661 32	Liquor — do	12	59.3	89.0	8	40.4	52.6
20661 52	Confectionery (cocoa) coatings, including ice cream coating (made chiefly from cocoa powder and fat other than cocoa butter) — do	17	116.5	185.7	8	151.3	91.9
20661 00	Chocolate coatings, n.s.k.	(NA)	(X)	3.1	(NA)	(X)	.8
20662 —	Chocolate and chocolate-type confectionery products made from cocoa beans ground in same establishment:						
20662 00	Chocolate and chocolate-type confectionery products (made from cocoa beans ground in same establishment), including bar goods, granola bars, package goods, specialties, bulk goods, count goods, molded confections (see also code 20652) (for additional detail, see Current Industrial Report MA-20D, Confectionery) — mil lb	10	704.8	1 258.6	10	495.9	1 040.1
20669 —	Other chocolate and cocoa products	(NA)	(X)	1 220.1	(NA)	(X)	980.8
	Chocolate, except coatings:						
20669 11	Unsweetened — mil lb	7	*41.0	47.5	(NA)	9.9	23.7
20669 21	Sweetened — do	14	285.5	511.6	(NA)	289.9	439.4
	Cocoa, powdered:						
20669 63	Unsweetened — mil lb	12	91.2	77.9	(NA)	127.0	120.6
	Sweetened or mixed with other substances:						
20669 71	In cans or packages of 2-1/2 lb or less — mil lb	11	110.4	146.3	(NA)	148.8	199.1
20669 75	In other containers and bulk (barrels, drums, bags) — do	17	140.9	114.7	(NA)	35.0	25.8
20669 81	Cocoa butter — do	6	28.5	57.1	3	**9.3	21.3

See footnotes at end of table.

Table 2. Product and Product Classes—Quantity and Value of Shipments by All Producers: 1987 and 1982—Con.

[Includes quantity and value of products of this industry produced by (1) establishments classified in this industry (primary) and (2) establishments classified in other industries (secondary). Transfers of products of this industry from one establishment of a company to another establishment of the same company (interplant transfers) are also included. For further explanation, see Value of Shipments in appendix. For meaning of abbreviations and symbols, see introductory text]

1987 product code	Product	1987			1982		
		Number of companies with shipments of $100,000 or more	Product shipments[1]		Number of companies with shipments of $100,000 or more	Product shipments[1]	
			Quantity[2]	Value (million dollars)		Quantity[2]	Value (million dollars)
2066- —	**CHOCOLATE AND COCOA PRODUCTS**—Con.						
20669 —	Other chocolate and cocoa products—Con.						
	Chocolate syrups:						
	Chocolate liquor base:						
20669 92	In cans or packages of 16 oz or less ---- mil lb	9	50.4	33.6	(NA)	148.5	109.0
20669 93	In other containers and in bulk ---- do	9	(S)	171.0			
20669 95	Cocoa powder base ---- do	19	79.9	50.9	(NA)	70.5	30.3
20669 00	Chocolate and cocoa products, except confectionery, n.s.k. ----	(NA)	(X)	9.4	(NA)	(X)	11.6
20660 —	Chocolate and cocoa products, n.s.k. ----	(NA)	(X)	104.9	(NA)	(X)	46.0
20660 00	Chocolate and cocoa products, n.s.k., typically for establishments with 10 employees or more (see note) ----	(NA)	(X)	11.2	(NA)	(X)	26.8
20660 02	Chocolate and cocoa products, n.s.k., typically for establishments with less than 10 employees (see note) ----	(NA)	(X)	93.7	(NA)	(X)	19.2
2067- —	**CHEWING GUM**						
	Total ----	**(NA)**	**(X)**	**869.2**	**(NA)**	**(X)**	**817.2**
20670 —	Chewing gum and chewing gum base:						
	Chewing gum, not medicated:						
20670 11	Containing sugar ---- mil lb	9	208.8	499.1	9	395.6	739.0
20670 14	Not containing sugar ---- do	5	(D)	(D)			
20670 15	Chewing gum base ---- do	4	(D)	(D)	4	(D)	(D)
20670 00	Chewing gum, n.s.k., typically for establishments with 5 employees or more (see note) ----	(NA)	(X)	.5	(NA)	(X)	(D)
20670 02	Chewing gum, n.s.k., typically for establishments with less than 5 employees (see note) ----	(NA)	(X)	–	(NA)	(X)	–
2068- —	**NUTS AND SEEDS**						
	Total ----	**(NA)**	**(X)**	**2 057.5**	**(NA)**	**(X)**	**1 494.3**
20680 —	Nuts and seeds (salted, roasted, cooked, or blanched):						
	Sold in bulk:						
20680 13	Peanuts, shipped separately ---- mil lb	30	379.0	289.6	29	383.1	232.2
20680 15	Mixed nuts, including 4 varieties or more ---- do	11	4.5	13.1	11	8.2	10.2
20680 17	Other nuts, shipped separately or with 3 varieties or less ---- do	27	186.6	303.6	31	152.7	223.3
	Canned nut meats:						
20680 33	Peanuts, shipped separately ---- mil lb	18	46.3	123.5	19	177.6	222.0
20680 35	Mixed nuts, including 4 varieties or more ---- do	16	19.9	49.7	20	43.5	97.9
20680 37	Other nuts, canned separately or with 3 varieties or less ---- do	14	34.1	123.8	25	*53.3	116.5
	Other packaged nut meats:						
20680 53	Peanuts, shipped separately ---- mil lb	22	189.3	277.3	25	145.4	214.6
20680 55	Mixed nuts, including 4 varieties or more ---- do	19	33.5	62.9	19	19.2	45.3
20680 57	Other nuts, packaged separately or with 3 varieties or less ---- do	27	316.1	703.4	33	133.5	266.4
20680 61	Seeds (sunflower, pumpkin, etc.) ---- do	23	142.9	66.9	14	106.2	52.7
20680 00	Nuts and seeds, n.s.k., typically for establishments with 10 employees or more (see note) ----	(NA)	(X)	32.5	(NA)	(X)	13.3
20680 02	Nuts and seeds, n.s.k., typically for establishments with less than 10 employees (see note) ----	(NA)	(X)	11.3	(NA)	(X)	–

Note: In 1987 Census of Manufactures, data for establishments of small single unit companies with up to 20 employees were estimated from administrative-records data rather than data actually collected from respondents. Employment cutoffs used for administrative records for each industry and shipments figures are included in code ending with "002". In both 1987 and 1982 Censuses of Manufactures, products not completely identified on standard forms were coded in appropriate product class (five-digit) followed by "00" or to appropriate product group code (four-digit) followed by "000".

[1]Data reported by all producers, not just those with shipments of $100,000 or more.

[2]For some establishments, data have been estimated from central unit values which are based on quantity-value relationships of reported data. The following symbols are used when percentage of each quantity figure estimated in this manner equals or exceeds 10 percent of published figure: * 10 to 19 percent estimated; ** 20 to 29 percent estimated. If 30 percent or more is estimated, figure is replaced by (S).

Table 3. Materials Consumed by Kind: 1987 and 1982

[Includes quantity and cost of materials consumed or put into production by establishments classified only in this industry. For further explanation, see Cost of Materials in appendix. For meaning of abbreviations and symbols, see introductory text]

1987 material code	Material	1987		1982	
		Quantity[1]	Delivered cost (million dollars)	Quantity[1]	Delivered cost (million dollars)
	INDUSTRY 2061, RAW CANE SUGAR				
	Materials, containers, and supplies ----	**(X)**	**756.8**	**(X)**	**709.7**
013321	Sugar cane ---- 1,000 s tons	23 107.7	644.1	*23 990.8	629.0
970099	All other materials, containers, and supplies ----	(X)	95.8	(X)	59.8
971000	Materials, containers, and supplies, n.s.k.[2] ----	(X)	16.9	(X)	20.9

See footnotes at end of table.

Table 3. **Materials Consumed by Kind: 1987 and 1982**—Con.

[Includes quantity and cost of materials consumed or put into production by establishments classified only in this industry. For further explanation, see Cost of Materials in appendix. For meaning of abbreviations and symbols, see introductory text]

1987 material code	Material		1987		1982	
			Quantity[1]	Delivered cost (million dollars)	Quantity[1]	Delivered cost (million dollars)
	INDUSTRY 2062, CANE SUGAR REFINING					
	Materials, containers, and supplies		**(X)**	**1 949.8**	**(X)**	**2 274.8**
013321	Sugar cane	1,000 s tons	(D)	[3]	(D)	[3]
206101	Raw cane sugar (converted to 96 degree basis)	do	4 361.7	1 755.4	5 743.2	2 067.5
260091	Paper and paperboard containers, including shipping sacks and other packaging supplies		(X)	73.7	(X)	71.6
970099	All other materials, containers, and supplies		(X)	108.7	(X)	[3]130.8
971000	Materials, containers, and supplies, n.s.k.[2]		(X)	2.0	(X)	4.9
	INDUSTRY 2063, BEET SUGAR					
	Materials, containers, and supplies		**(X)**	**1 138.6**	**(X)**	**908.6**
013311	Sugar beets	1,000 s tons	*25 843.1	961.3	*25 687.0	789.0
260091	Paper and paperboard containers, including shipping sacks and other packaging supplies		(X)	52.0	(X)	18.1
970099	All other materials, containers, and supplies		(X)	122.4	(X)	101.2
971000	Materials, containers, and supplies, n.s.k.[2]		(X)	2.9	(X)	.3
	INDUSTRY 2064, CANDY AND OTHER CONFECTIONERY PRODUCTS					
	Materials, ingredients, containers, and supplies		**(X)**	**2 865.9**	**(NA)**	**(NA)**
206602	Chocolate coatings	1,000 s tons	138.8	233.2	(NA)	(NA)
206604	Cocoa powder composition coatings	do	8.4	7.3	(NA)	(NA)
206606	Unsweetened chocolate (chocolate liquor)	do	45.3	113.9	(NA)	(NA)
206608	Cocoa, pressed cake and powder	do	11.5	16.2	(NA)	(NA)
206691	Cocoa butter	mil lb	89.0	197.7	(NA)	(NA)
	Sweeteners:					
204604	High fructose corn syrup in terms of solids	mil lb	**77.2	7.4	(NA)	(NA)
204611	Crystalline fructose (dry fructose)	do	*19.3	5.1	(NA)	(NA)
204612	Dextrose and corn syrup, including corn syrup solids in terms of dry weight	do	919.3	90.4	(NA)	(NA)
286932	Sugar substitutes (mannitol, sorbitol, etc.)	do	24.5	9.8	(NA)	(NA)
206011	Sugar (cane and beet) in terms of sugar solids	1,000 s tons	873.7	402.2	(NA)	(NA)
010012	Nuts, in shell (including peanuts)	mil lb	80.8	61.3	(NA)	(NA)
206583	Nutmeats, including peanuts (purchased as such)	do	253.9	225.2	(NA)	(NA)
190045	Fresh and dried fruits	do	59.3	60.7	(NA)	(NA)
202000	Milk and milk products		(X)	168.1	(NA)	(NA)
207007	Fats and oils (including shortening)	mil lb	83.9	34.7	(NA)	(NA)
286953	Essential oils and flavors		(X)	41.7	(NA)	(NA)
190003	Flexible packaging materials		(X)	217.9	(NA)	(NA)
	Containers:					
265001	Paperboard containers, boxes, and corrugated paper		(X)	275.0	(NA)	(NA)
341101	Metal cans		(X)	12.7	(NA)	(NA)
322101	Glass containers	1,000 gross	**699.9	11.9	(NA)	(NA)
970099	All other materials, ingredients, containers, and supplies		(X)	426.8	(NA)	(NA)
971000	Materials, ingredients, containers, and supplies, n.s.k.[2]		(X)	246.7	(NA)	(NA)
	INDUSTRY 2066, CHOCOLATE AND COCOA PRODUCTS					
	Materials, ingredients, containers, and supplies		**(X)**	**1 640.7**	**(NA)**	**(NA)**
017915	Cocoa beans	1,000 s tons	245.2	440.2	(NA)	(NA)
206602	Chocolate coatings	do	19.2	29.0	(NA)	(NA)
206604	Cocoa powder composition coatings	do	(D)	(D)	(NA)	(NA)
206606	Unsweetened chocolate (chocolate liquor)	do	54.0	98.1	(NA)	(NA)
206608	Cocoa, pressed cake and powder	do	11.3	11.8	(NA)	(NA)
206691	Cocoa butter	mil lb	95.7	210.8	(NA)	(NA)
	Sweeteners:					
204604	High fructose corn syrup in terms of solids	mil lb	*58.5	5.6	(NA)	(NA)
204612	Dextrose and corn syrup, including corn syrup solids in terms of dry weight	do	57.4	5.8	(NA)	(NA)
206011	Sugar (cane and beet) in terms of sugar solids	1,000 s tons	351.2	160.3	(NA)	(NA)
010012	Nuts, in shells, including peanuts	mil lb	(D)	(D)	(NA)	(NA)
206583	Nutmeats, including peanuts (purchased as such)	do	41.5	62.7	(NA)	(NA)
202000	Milk and milk products		(X)	161.8	(NA)	(NA)
207007	Fats and oils, including shortening	mil lb	*91.5	35.6	(NA)	(NA)
286953	Essential oils and flavors		(X)	7.1	(NA)	(NA)
190003	Flexible packaging materials		(X)	72.5	(NA)	(NA)
265001	Paperboard containers, boxes, and corrugated paperboard		(X)	59.4	(NA)	(NA)
970099	All other materials, ingredients, containers, and supplies		(X)	215.8	(NA)	(NA)
971000	Materials, ingredients, containers, and supplies, n.s.k.[2]		(X)	55.8	(NA)	(NA)
	INDUSTRY 2067, CHEWING GUM					
	Materials, ingredients, containers and supplies		**(X)**	**315.8**	**(X)**	**287.8**
206701	Chewing gum base, including chicle		(X)	81.2	(X)	(D)
	Sweeteners:					
204604	High fructose corn syrup in terms of solids	mil lb	(D)	(D)	(D)	(D)
204612	Dextrose and corn syrup, including corn syrup solids in terms of dry weight	do	77.0	9.9	85.9	16.2
286932	Sugar substitutes (mannitol, sorbitol, etc.)	do	(D)	(D)	(D)	(D)
206011	Sugar (cane and beet) in terms of sugar solids	1,000 s tons	99.6	35.8	*86.2	35.1
286953	Essential oil and flavors		(X)	19.2	(X)	(D)
190003	Flexible packaging materials		(X)	57.1	(X)	53.7
265001	Paperboard containers, boxes, and corrugated paperboard		(X)	22.9	(X)	19.7
970099	All other materials, ingredients, containers, and supplies		(X)	70.6	(X)	43.0
971000	Materials, ingredients, containers, and supplies, n.s.k.[2]		(X)	.6	(X)	3.1

See footnotes at end of table.

Table 3. **Materials Consumed by Kind: 1987 and 1982**—Con.

[Includes quantity and cost of materials consumed or put into production by establishments classified only in this industry. For further explanation, see Cost of Materials in appendix. For meaning of abbreviations and symbols, see introductory text]

1987 material code	Material	1987		1982	
		Quantity[1]	Delivered cost (million dollars)	Quantity[1]	Delivered cost (million dollars)
	INDUSTRY 2068, SALTED AND ROASTED NUTS AND SEEDS				
	Materials, ingredients, containers, and supplies	**(X)**	**1 239.9**	**(NA)**	**(NA)**
010012	Nuts, in shell (including peanuts) ---- mil lb	844.8	458.9	(NA)	(NA)
206583	Nutmeats, including peanuts (purchased as such) ---- do	632.6	502.6	(NA)	(NA)
207007	Fats and oils (including shortening) ---- do	(S)	8.2	(NA)	(NA)
190003	Flexible packaging materials	(X)	35.4	(NA)	(NA)
	Containers:				
265001	Paperboard containers, boxes, and corrugated paperboard	(X)	24.6	(NA)	(NA)
341101	Metal cans	(X)	26.7	(NA)	(NA)
322101	Glass containers ---- 1,000 gross	**917.2	18.3	(NA)	(NA)
970099	All other materials, ingredients, containers, and supplies	(X)	146.5	(NA)	(NA)
971000	Materials, ingredients, containers, and supplies, n.s.k.[2]	(X)	18.7	(NA)	(NA)

[1]For some establishments, data have been estimated from central unit values which are based on quantity-cost relationships of reported data. The following symbols are used when percentage of each quantity figure estimated in this manner equals or exceeds 10 percent of published figure: * 10 to 19 percent estimated; ** 20 to 29 percent estimated. If 30 percent or more is estimated, figure is replaced by (S).

[2]Total cost of materials of establishments that did not report detailed materials data, including establishments that were not mailed a form.

[3]Data for material code 013321 are combined with data for material code 970099.

APPENDIX
Scope and Coverage and Explanation of Terms

GENERAL

The 1987 Census of Manufactures is the 32nd census of manufacturing establishments conducted in the United States. For 1987, it was conducted as part of the economic censuses, which included the censuses of mineral industries, construction industries, retail and wholesale trades, service industries, selected transportation activities, and minority-owned and women-owned businesses, under authority of title 13 of the United States Code. Title 13 specifies that an economic census be conducted every 5 years to cover years ending in 2 and 7.

SCOPE AND COVERAGE

Establishment Basis of Reporting

The census of manufactures is conducted on an establishment basis. All manufacturing establishments with one paid employee or more at any time during the year are covered by the census of manufactures. Therefore, a company operating at more than one location is required to file a separate report for each location. This report excludes information for separately operated administrative offices, warehouses, garages, and other auxiliary units which service manufacturing establishments of the same company. Where these auxiliary operations are conducted at the same location as the manufacturing operation, they are usually included in the report for the operating manufacturing establishment.

Use of Administrative Records

From a universe of approximately 350,000 manufacturing establishments in the 1987 Census of Manufactures, approximately 150,000 small single-establishment companies were excused from filing reports. Selection of the small establishment nonmail cases was done on an industry-by-industry basis. A variable cutoff was used to determine those establishments for which administrative records were to be used in place of a census report. The cutoffs were selected so the administrative-record cases would account for approximately 3 percent or less of the value of shipments for the industry. These cutoffs were then adjusted so that all single-establishment companies with less than 5 employees were excluded from the mail canvass, while all establishments with more than 20 employees were included. Where establishments in the 5 to 20 employee size range were included in the mail canvass, an abbreviated census form was frequently used.

For these nonmail establishments, (and a small number of larger establishment whose reports were not received at the time the data were tabulated) data on employment, payroll, and receipts were obtained from administrative records of other government agencies rather than from census forms. The administrative-record information was then used in conjunction with industry averages to estimate the data for these establishments. The value of shipments and cost of materials were not distributed among specific products and materials but were included in the product and material "not specified by kind" (n.s.k.) categories.

EXPLANATION OF TERMS

Number of establishments and companies–A separate report was required for each manufacturing establishment (plant) with one employee or more. An establishment is defined as a single physical location where manufacturing is performed. A company, on the other hand, is defined as a business organization consisting of one establishment or more under common ownership or control.

All employees–Includes all full-time and part-time employees on the payrolls at any time during the year. Included are all persons on paid sick leave, paid holidays, and paid vacations. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employees" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for midmonth payroll periods of March, May, August, and November.

Production workers–Includes workers up through the working-supervisor level engaged in fabricating, processing, assembling, inspecting, receiving, packing, warehousing, shipping (but not delivering), maintenance, repair, janitorial, guard services, product development, auxiliary production for plant's own use (e.g., powerplant), recordkeeping, and other closely associated services. Truckdrivers delivering ready-mixed concrete are also included in production workers.

Other employees–Includes nonproduction personnel, including those engaged in the following activities: supervision above working-supervisor level, sales (including driver/salespersons), sales delivery (truckdrivers and helpers), advertising, credit collection, installation and

servicing of own product, clerical and routine office functions, executive, purchasing, finance, legal, personnel (including cafeteria, etc.), professional, and technical employees.

Payroll–Includes the gross earnings for the "employees" defined above, such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

Production-worker hours–Covers hours worked or paid for at the plant, including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

Cost of materials–Refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuels consumed, regardless of whether they were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or generating electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

Specific materials consumed (table 3)–In addition to the total cost of materials which every establishment was required to report, information was also collected for most manufacturing industries on the consumption of major materials used in manufacturing. These inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Establishments consuming less than a specified amount (usually $10,000) of a specific material were not requested to report consumption of that material separately. Also, the cost of materials for the small establishments for which administrative records were used was estimated as "not specified by kind" (n.s.k.).

Value of shipments and other receipts–Generally refers to received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair receipts, sale of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishment from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by another was reported by the plant providing the materials.

In a few industries, the value of production or value of work completed is used instead of value of shipments. These industries are identified in the introduction and are footnoted in table 1.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value, that is, including not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead and profit).

Shipments or production of individual products (table 2)–In the 1987 census, detailed shipment information was collected for approximately 11,000 individual products. These products are identified by a seven-digit code and are grouped into approximately 1,500 classes of products, which in turn are primary to 459 four-digit industries. Data at the five-digit product-class level have been collected each year as part of the annual survey of manufactures. Information at the seven-digit level, collected for many industries in the current industrial reports program, is not included in this table.

Value added by manufacture–This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacturing, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

For those industries where value of production is collected instead of value of shipments (see footnote in table 1), value added is adjusted only for the change in work-in-process inventories between the beginning and end of the year. For those industries where value of work done is collected, the value added does not include an adjustment for the change in finished goods or work-in-process inventories.

Value added avoids the duplication in the figure for value of shipments which results from the use of products of some establishments as materials by others. Value

added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

Expenditures for new plant and equipment–Establishments in operation and any known plants under construction were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments and (b) new machinery and equipment used for replacement and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expenses. Data for used plant and equipment will be published in the final industry bulletin.

End-of-year inventories–Comprised of (a) finished products; (b) work-in-process; and (c) materials, supplies, fuels, etc. Beginning in 1982, respondents were asked to report their inventories at (the lower of) cost or market prior to adjustment to LIFO cost. This is a change from prior years in which respondents were permitted to value their inventories using any generally accepted accounting method. Therefore, 1982 through 1987 data for inventories are not strictly comparable to prior-year data.

Specialization and coverage ratios–An establishment is classified in a particular industry if its shipments of primary products of the industry exceed in value its shipments of the products of any other single industry. An establishments' shipments include those products assigned to an industry (primary products), those considered primary to other industries (secondary products), and receipts for miscellaneous activities (merchandising, contract work, resales, etc.). The following ratios have been developed to measure the relationship of primary product shipments to the data on shipments for the industry shown in table 1 and data on product shipments shown in table 2.

Specialization ratio–Represents the ratio of primary product shipments to total product shipments (primary and secondary, excluding miscellaneous receipts) for the establishments classified in the industry.

Coverage ratio–Represents the ratio of primary products shipped by the establishments classified in the industry to the total shipments of such products that are shipped by all manufacturing establishments, wherever classified.

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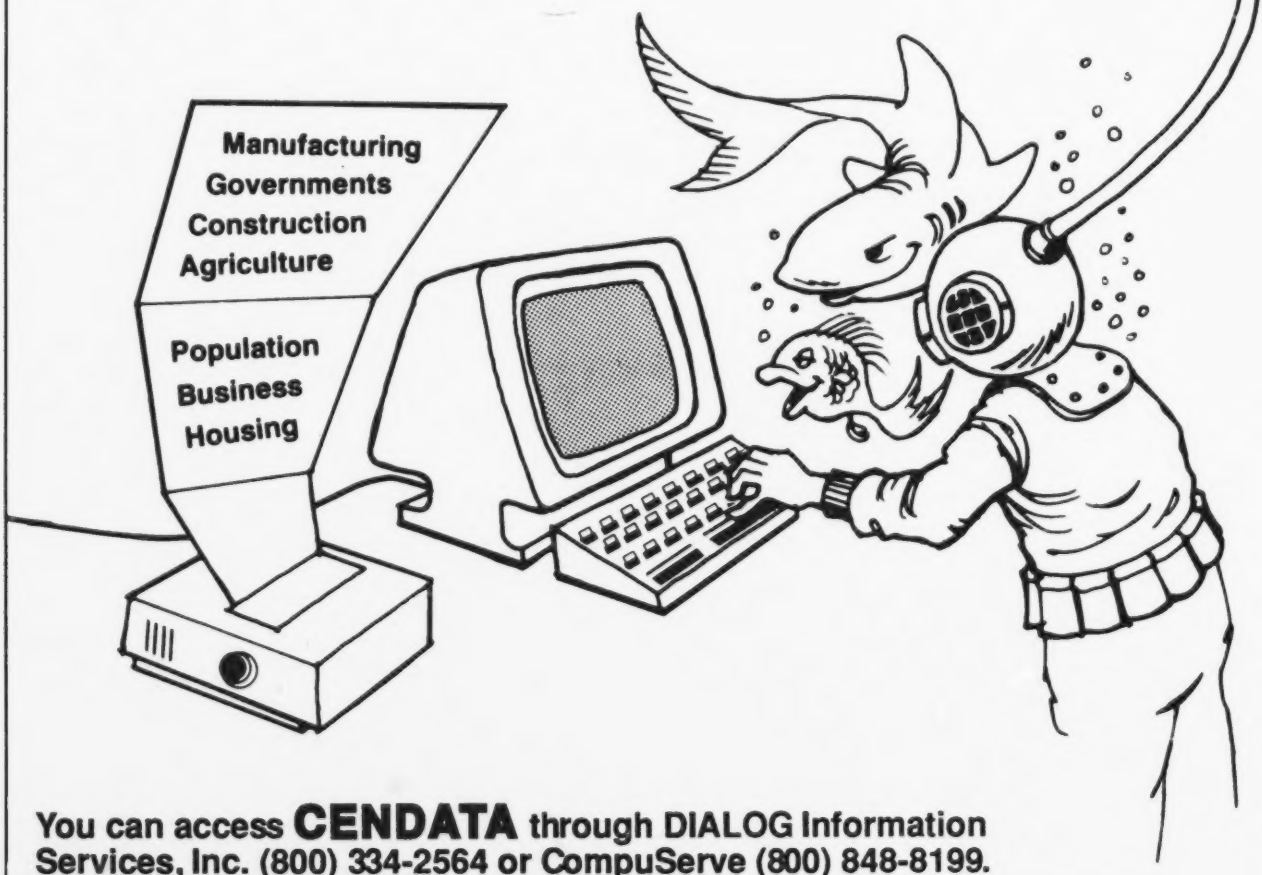

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